United States Patent [19]

Miles

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[54] **LAMINATED WEB PACKAGE**

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[73] Assignee: **Colgate-Palmolive Company,** New York, N.Y.

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[52] **U.S. Cl.** ..... **242/55.53,** 156/277, 229/87 F, 229/3.5 MF 206/389, 206/494, 225/56

[51] **Int. Cl.**... **B65d 65/02,** B65d 85/67, B65d 85/72

[58] **Field of Search** ..... 206/58, 59 R, 59 F; 229/87 F, 3.5 MF, 87 R; 99/171 R, 171 LE, 171 LP, 171 H; 156/277, 233

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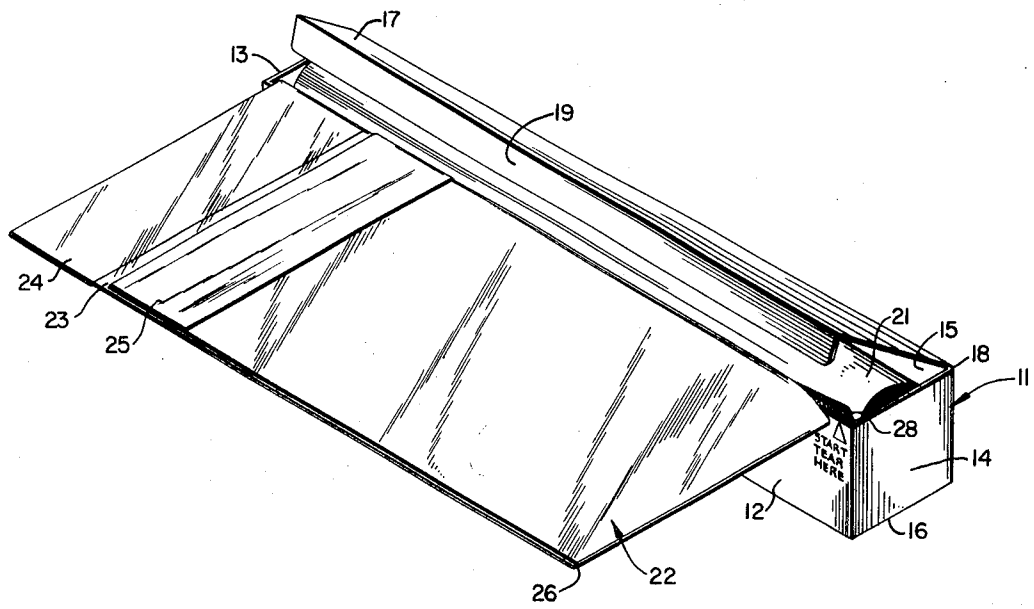
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Primary Examiner—William T. Dixson, Jr.
Attorney, Agent, or Firm—Strauch, Nolan, Neale, Nies & Kurz

[57] **ABSTRACT**

A web of wrapping material in the form of a constant width sheet of synthetic plastic film having parallel bands of metal foil secured along opposite side edges is longitudinally folded, prior to winding into a supply roll, about an offcenter fold region in the film so that the fold region is at one end of the roll and the foil bands lie in laterally spaced non-overlapping relation at the other end of the roll, thus providing a short roll requiring a shorter container and facilitating clean severance of a leading end length wound off the roll.

4 Claims, 6 Drawing Figures



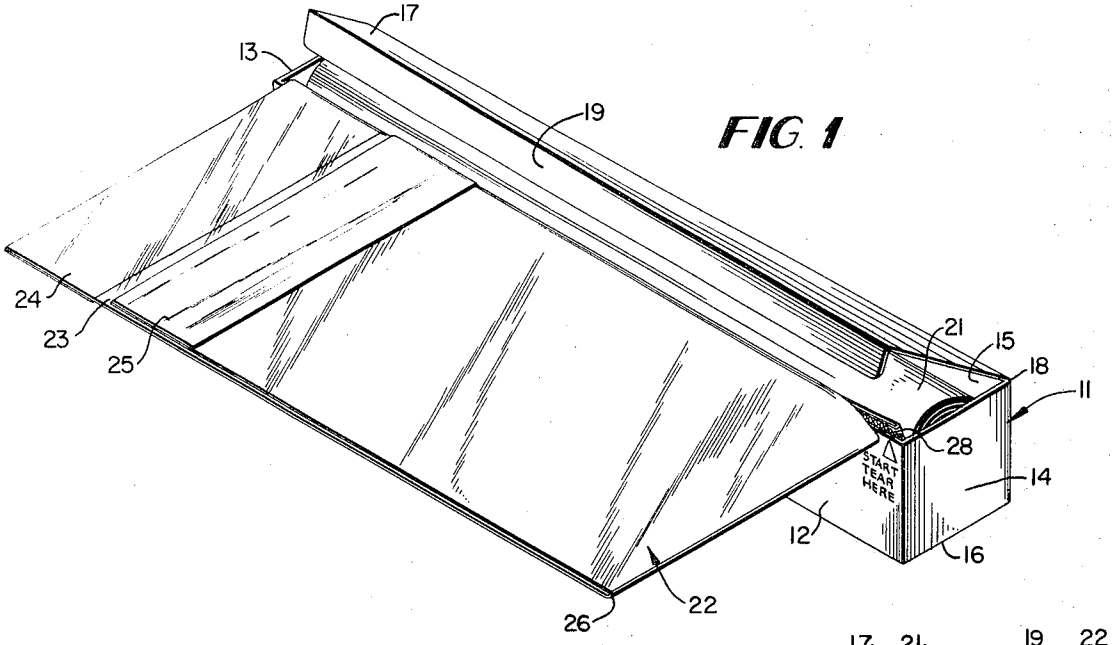


FIG. 1

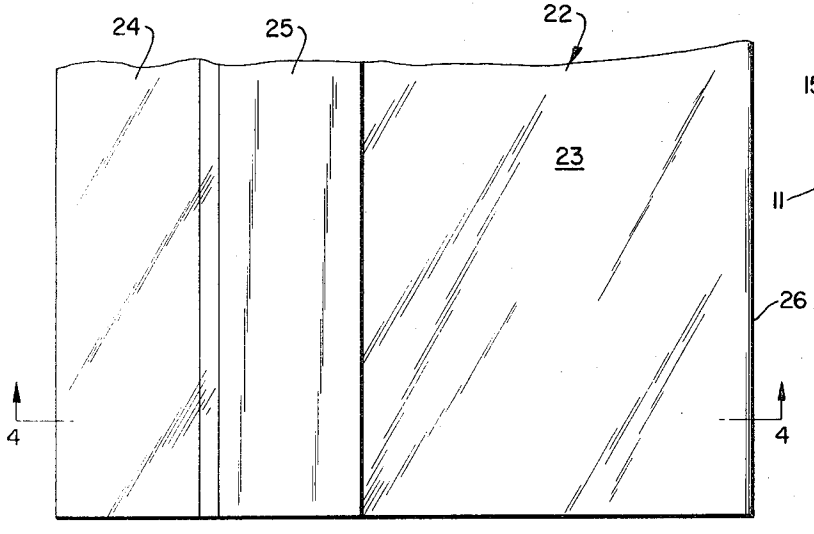


FIG. 3

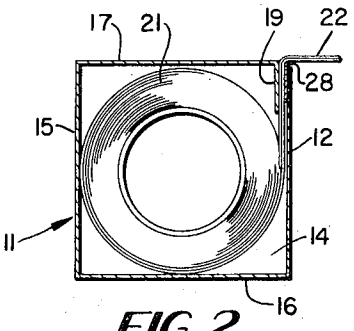


FIG. 2

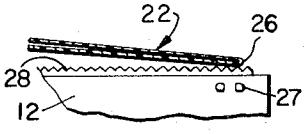


FIG. 5

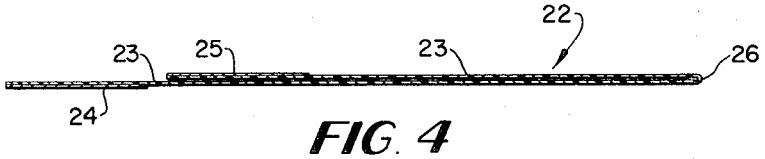


FIG. 4

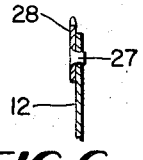


FIG. 6

LAMINATED WEB PACKAGE

This invention relates to the packaging and dispensing of laminated plastic film and metal foil material, and is particularly concerned with the improvement wherein a web of the material is packaged and dispensed in a longitudinally folded condition.

It has been proposed to package and dispense web material consisting essentially of a full width sheet of thin synthetic plastic transparent film having bands of metal foil bonded along the opposite side edges. A preferred use of this material is to wrap portions of meat or the like for cooking, the film providing a tubular transparent enclosure surrounding the major part of the meat being cooked and the bands being dead folded or crimped at the ends of the enclosure. The enclosure transmitts energy for cooking and browning the meat, while the folded ends retain the enclosure and thereby not only provide self basting but protect adjacent utensil and oven surfaces against grease and like deposits.

In a commercially successful form now being marketed, the laminated web material is wound into a full width roll and placed in a cardboard box having a longitudinally hinged top cover extending parallel to the roll and a cutter blade secured along the free end of the cover. Since the film is about 18–24 inches wide, the box is correspondingly long and some care is required to evenly tear the desired length of material all across the web. The present invention is concerned with an improvement that effectively reduces the size of the box within which a roll of the material is disposed and also provides for more efficient even tearing and severing of a desired length of material, and this is the major advantage of the invention.

In the invention the full width laminated material, consisting of the flimsy plastic film having the metal foil bands bonded along its side edges is specially longitudinally folded prior to rolling. Since the material is of increased thickness in the lamination regions where the metal foil overlies the plastic film, it is preferable to longitudinally fold the material along a line that is offcenter with respect to the film width, so that as will appear one end of the roll will not include all of the directly overlying laminated regions, and the effective roll diameter thus is prevented from unduly locally increasing. These and other advantages of the invention will appear as the description proceeds.

BRIEF DESCRIPTION OF DRAWING

FIG. **1** is a generally perspective view showing the invention according to a preferred embodiment;

FIG. **2** is a transverse section across the package of FIG. **1**;

FIG. **3** is a plan view of the folded laminated web contained in the package of FIG. **1**;

FIG. **4** is a section on line **4—4** of FIG. **3**;

FIG. **5** is a fragmentary section illustrating the beginning of the web severing action; and

FIG. **6** is a fragmentary section showing a preferred location of the cutter blade in the package.

PREFERRED EMBODIMENTS

FIGS. **1** and **2** illustrate a package containing a stiff cardboard box **11** having a front wall **12**, end walls **13** and **14**, a rear wall **15**, a bottom wall **16** and a top cover **17** integrally longitudinally hinged at **18** along the upper end of rear wall **15** and formed with a front flap **19** along its free end adapted to be adhesively attached along the upper outer top surface of the front wall in the package and to be tucked behind the dispensing web (FIG. **2**) after the package has been opened to use the contents.

Disposed in a roll **21** within the box **11** to complete the package is a longitudinally folded laminated plastic film-metal foil web **22** consisting essentially of a constant width film sheet **23** having parallel metal foil bands **24** and **25** full surface bonded thereto along its opposite side edges.

The longitudinal fold region is indicated at **26** in the drawings. It will be noted that this region **26** exists only in the film, and it is located sufficiently offcenter with respect to the side edges that in the folded condition illustrated best in FIGS. **3** and **4** the respective opposite side foil bands **24** and **25** do not overlap. Preferably the bands lie parallel adjacent each other but laterally spaced in the manner shown. Thus nowhere does any winding in the roll contain a thickness greater than twice the film thickness plus one thickness of foil. Fold **26** is parallel to the foil bands and to the direction of unrolling of the web during dispensing.

Secured as by rivets **27** along the upper edge of front wall **12** is a serrated cutter blade **28.** During dispensing the folded web is drawn across this blade to sever a desired length which is then laterally unfolded for use, as in roasting. In the package, the end fold **26** is disposed at one extreme end of the roll **21.** As the folded web leaves the roll during dispensing I have found it most efficient and preferable to slightly tilt the edge containing fold **26** (see FIG. **5**) so that initial severing contact between the folded web and blade **28** is made at that end, and then a firm downward slightly laterally biased pull will result in a clean cut severance all across the roll. Even though the film is tougher and more resistant to tear than the foil this mode of severance seems unexpectedly advantageous because the dual thickness of film seems to provide body to the rather flimsy film and the tear start is rendered easy. Once the film starts to sever the foil goes along with it easily at the laminated regions.

The above described mode of packaging provides to the ultimate customer desired lengths of full width web material. All that is necessary after severing a desired length is to unfold along fold region **26** and the full width of plastic film is spread out ready to receive the meat, and the foil bonded edges are ready to be dead folded. In the invention the plastic film is folded from its full **18-24** inch width to a width of 10–14 inches in the roll **21,** and when a severed length is unfolded the full 18–24 inch width is available just as if it came off a longer roll.

The box in the invention is much shorter, only about half as long, as compared to boxes wherein full width material was rolled. This represents an immediate and significant saving in packaging costs. Less box material is needed, and the blade **28** is only half as long. Shipping and storage space are reduced, and inventory is improved. Additionally I have found that the laterally shorter severance action in the invention, even though it requires cutting through two layers of plastic film is unexpectedly an improvement in control of cutting path over the longer traverse tear. A significant part of this tear improvement action is believed due to the shorter roll and therefore the shorter sustained pull needed to traverse the cutter blade, but I believe that

the doubled film aids the action. It is certainly true that the shorter box, even though it may be slightly greater in cross section to contain a given volume of the web material, is more easily handled by even the most inept customer. The shorter traverse during cutting also reduces the chance of objectionable tearing near the final end of the cut.

The box is preferably marked with an index at the end where the fold **26** is located, see FIG. **1** at **28** as to ensure most efficient dispensing.

The invention therefore packages full width laminated foil at about half the cost, and it provides a smaller, shorter, easier to handle package from which full width material may be extracted more efficiently.

In the preferred embodiment the plastic sheeting is of a constant 18–24 inch width throughout the web, and the foil bands are of minor area, usually 1–3 inches wide. The film may advantageously be a heat resistant polyester resin about 0.25 to 2.0 mil thick, and the foil bands aluminum foil about 0.30 to 2.0 mil thick surface bonded onto the film either by a heat resistant adhesive such as a silicone base adhesive, or by the bonding process disclosed in U.S. Pat. No. 2,681,022. The laminated web is preferably manufactured full width as has been done before, followed by the longitudinal folding action prior to rolling and boxing.

I claim:

1. A package comprising a relatively wide web of laminated wrapping material wound in a roll and consisting essentially of a substantially constant width sheet of thim flexible synthetic plastic film having relatively narrow bands of metal foil surface bonded along its opposite side edges, said film being folded upon itself longitudinally about an offcenter region so that said metal foil bands are disposed in adjacent laterally spaced non-overlapping relation nearer one end of the roll than the other, and said folded web at said offcenter region having a thickness of substantially only twice that of said film and the folded portions overlying in free contact whereby random lengths of the folded web material may be severed and unfolded to provide a full width laminated wrap at the time of use.

2. The package defined in claim **1,** wherein said fold region is disposed at one end of said roll and said laterally spaced bands are both disposed adjacent the other end of said roll.

3. The package defined in claim **1,** wherein said folded web has at no point a thickness greater than twice the film thickness plus one thickness of foil.

4. The package defined in claim **3,** wherein the full width of said film is about 18–24 inches and the folded web has a width of about 10–14 inches.

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